32.   The method according to claim 30, wherein the step of dynamically changing the bandwidth allocation includes varying a compression ratio of at least one of the selected programs.

33.   The method according to claim 30, wherein the step of dynamically changing the bandwidth allocation includes allocating bandwidth to at least one of the selected programs based on an amount of changes within at least one of the selected programs over time.

34.   The method according to claim 33, wherein said changes occur frame to frame.

35.   The method according to claim 33, wherein said changes are changes in visual detail.

36.   The method according to claim 2, wherein the step of dynamically changing the bandwidth allocation over time includes varying a compression ratio of at least one of the selected programs.

37.   The method according to claim 2, wherein the step of dynamically changing the bandwidth allocation over time includes allocating bandwidth to at least one of the selected programs based on an amount of changes within one of the selected programs over time.

38.   The method according to claim 37, wherein said changes occur frame to frame.

39.   The method according to claim 37, wherein said changes are changes in visual detail.

40. The method according to claim 9, wherein the step of dynamically changing the bandwidth allocation over time includes varying the compression ratio of at least one of the selected programs.

41. The method according to claim 9, wherein the step of dynamically changing the bandwidth allocation over time includes allocating bandwidth to at least one of the selected programs based on an amount of changes within at least one of the selected programs over time.

42. The method according to claim 41, wherein said changes occur frame to frame.

43. The method according to claim 41, wherein said changes are changes in visual detail.

44. The method according to claim 18, wherein the step of allocating includes dynamically changing the bandwidth allocation over time.

45. The method according to claim 44, wherein the step of dynamically changing the bandwidth allocation includes varying a compression ratio of at least one of the selected programs.

46. The method according to claim 44, wherein the step of dynamically changing the bandwidth allocation includes allocating bandwidth to at least one of the selected programs based on an amount of changes within at least one of the selected programs over time.

47.   The method according to claim 46, wherein said changes occur frame to frame.

48.   The method according to claim 46, wherein said changes are changes in visual detail.

49.   The method according to claim 27, wherein the step of dynamically changing the bandwidth allocation includes varying a compression ratio of at least one of the selected programs.

50.   The method according to claim 27, wherein the step of dynamically changing the bandwidth allocation includes allocating bandwidth to at least one of the selected programs based on an amount of changes within at least one of the selected programs over time.

51.   The method according to claim 50, wherein said changes occur frame to frame.

52.   The method according to claim 50, wherein said changes are changes in visual detail.

53.   A method of allocating bandwidth to a plurality of programs, each of said programs corresponding to one of a plurality of categories, said method comprising the steps of:

    selecting programs received from television programming sources;

    allocating bandwidth to the categories from whence the selected programs correspond.

54.   The method according to claim 53, wherein the step of allocating bandwidth to the categories further comprises the steps of:

allocating bandwidth to the selected programs within the categories; and

continuing allocating bandwidth to additional selected programs until at least one of the

following conditions occurs:

all of the programs are allocated bandwidth,

all of the bandwidth is allocated.

55. The method according to claim 53, wherein said step of allocating includes dynamically

changing the bandwidth allocation over time for at least one of the categories of programming.

56. The method according to claim 55, wherein the step of dynamically changing the

bandwidth allocation includes varying a number of the selected programs within at least one of

the categories.

57. The method according to claim 55, wherein the step of dynamically changing the

bandwidth allocation over time includes varying a compression ratio of at least one of the

selected programs within at least one of the categories of programming.

58. The method according to claim 55, wherein the step of dynamically changing the

bandwidth allocation over time includes allocating bandwidth to at least one of the selected

programs based on an amount of changes within at least one of the selected programs over time.

59. The method according to claim 58, wherein said changes occur frame to frame.

60.   The method according to claim 58, wherein said changes are changes in visual detail.

61.   A computer assisted packaging system for generating program control information, packaging programs and for allocating bandwidth to a plurality of programs comprising:

a multiplexer for receiving at least one program signal and at least one program control signal and for allocating a portion of said segments of bandwidth to said selected programs;

a delivery control processor unit connected to said multiplexer, whereby said program signals and said program information signals are multiplexed by said multiplexer; and

a central processing unit connected to said delivery control processor unit, whereby said delivery control processor unit receives commands from said central processing unit.

62.   The system according to claim 61, further comprising at least one workstation connected to said central processing unit for allowing a packager or programmer to interface with said computer assisted packaging system.

63.   The system according to claim 61, further comprising a video/audio equipment connected to said central processing unit for dynamically changing the bandwidth allocation over time.

64.   The system according to claim 63, wherein said video/audio equipment dynamically changes bandwidth allocation by changing a compression ratio of at least one of the selected programs, whereby programs with higher compression ratios require lower bit rates and less bandwidth, and programs with lower compression ratios require higher bit rates and more bandwidth.

65.   The system according to claim 63, wherein the step of dynamically changing the bandwidth allocation over time includes allocating bandwidth to at least one of the selected programs based on an amount of changes within at least one of the selected programs over time.

66.   The system according to claim 65, wherein said changes occur frame to frame.

67.   The system according to claim 65, wherein said changes are changes in visual detail.

68.   The system according to claim 61, further comprising at least one database connected to said central processing unit, whereby said central processing unit processes information within each of said databases.

69.   The system according to claim 68, wherein said at least one database further comprises an operations center database.

70.   The system according to claim 68, wherein said at least one database further comprises a cable franchise information database.

71.   The system according to claim 68, wherein said at least one database further comprises a local video storage database.

72.   A computer assisted packaging system for allocating bandwidth to a plurality of programs, each of the programs corresponding to one of a plurality of categories, comprising:

a central processing unit for selecting programs received from television programming sources;

a delivery control processor unit connected to said central processing unit; and

a multiplexer connected to said delivery control processor unit for allocating a portion of said segments of bandwidth to said selected programs and continuing to allocate segments of bandwidth until either all the programs are allocated bandwidth or all the bandwidth is allocated.

73.   The system according to claim 72, further comprising a video/audio equipment connected to said central processing unit for dynamically changing the bandwidth allocation over time.

74.   The system according to claim 73, wherein said video/audio equipment dynamically changes bandwidth allocation by changing a compression ratio of at least one of the selected programs, whereby programs with higher compression ratios require lower bit rates and less bandwidth, and programs with lower compression ratios require higher bit rates and more bandwidth.

75.   The system according to claim 73, wherein the step of dynamically changing the bandwidth allocation over time includes allocating bandwidth to at least one of the selected programs based on an amount of changes within at least one of the selected programs over time.

76.   The system according to claim 75, wherein said changes occur frame to frame.

77.   The system according to claim 75, wherein said changes are changes in visual detail.

78.   The system according to claim 72, wherein said central processing unit further comprises an algorithm for selecting said programs.

79.   A computer assisted packaging system for allocating bandwidth to a plurality of programs, each of the programs corresponding to one of a plurality of categories, comprising:

        a central processing unit for selecting the programs and also for dividing the bandwidth so that each of the program categories receives a segment of the bandwidth;

        a delivery control processor unit connected to said central processing unit; and

        a multiplexer connected to said delivery control processor unit for allocating a portion of said segments of bandwidth to the selected programs in at least one of the categories.

80.   The system according to claim 79, further comprising a video/audio equipment connected to said central processing unit for dynamically changing the bandwidth allocation over time.

81.   The system according to claim 80, wherein said video/audio equipment dynamically changes the bandwidth allocation by changing a compression ratio of at least one of the selected programs, whereby programs with higher compression ratios require lower bit rates and less bandwidth, and programs with lower compression ratios require higher bit rates and more bandwidth.

82.   The system according to claim 80, wherein the step of dynamically changing the bandwidth allocation over time includes allocating bandwidth to at least one of the selected programs based on an amount of changes within at least one of the selected programs over time.

83. The system according to claim 82, wherein said changes occur frame to frame.

84. The system according to claim 82, wherein said changes are changes in visual detail.

85. The system according to claim 79, wherein said central processing unit dynamically changes the bandwidth by varying a number of the selected programs within at least one of the selected categories.

86. The system according to claim 79, wherein said central processing unit further comprises an algorithm for selecting said programs.

87. A computer assisted packaging system for allocating bandwidth to a plurality of programs according to claim 59, wherein said central processing unit further assigns priority levels to the programs by assigning to each of said programs a priority level from a plurality of priority levels, said plurality of priority levels includes a high priority level and progressively lower priority levels and also for dividing the bandwidth so that each program category receives a segment of the bandwidth; and

said multiplexer further allocates a portion of said segments of bandwidth to selected programs in each of the categories with highest of said priority levels and continues to allocate segments of bandwidth to progressively lower priority level programs in each of the categories.

88. The system according to claim 87, further comprising a video/audio equipment connected to said central processing unit for dynamically changing the bandwidth allocation over time.

89.   The system according to claim 88, wherein said video/audio equipment changes the bandwidth allocation over time by changing a compression ratio of at least one of the selected programs, whereby programs with higher compression ratios require lower bit rates and less bandwidth, and programs with lower compression ratios require higher bit rates and more bandwidth.

90.   The system according to claim 88, wherein the step of dynamically changing the bandwidth allocation over time includes allocating bandwidth to at least one of the selected programs based on an amount of changes within at least one of the selected programs over time.

91.   The system according to claim 90, wherein said changes occur frame to frame.

92.   The system according to claim 90, wherein said changes are changes in visual detail.

93.   The system according to claim 87, wherein said central processing unit further comprises an algorithm for assigning said priority levels.

94.   The system according to claim 87, wherein said central processing unit appends a header to all the selected programs with the same priority level, wherein said appended header identifies said priority level for the program.

95.   A system for allocating bandwidth to a plurality of programs, each of said programs corresponding to one of a plurality of categories, comprising:

an operations center comprising a computer assisted packaging system;

said computer assisted packaging system comprising:

a central processing unit for selecting programs received from television programming sources;

a delivery control processor unit connected to said central processing unit; and

a multiplexer connected to said delivery control processor unit for allocating a portion of said segments of bandwidth to the selected programs.

96. The system according to claim 95, further comprising a video/audio equipment connected to said central processing unit for dynamically changing the bandwidth allocation over time.

97. The system according to claim 96, wherein said video/audio equipment dynamically changes bandwidth allocation by changing a compression ratio of at least one of the selected programs, whereby programs with higher compression ratios require lower bit rates and less bandwidth, and programs with lower compression ratios require higher bit rates and more bandwidth.

98. The system according to claim 96, wherein the step of dynamically changing the bandwidth allocation over time includes allocating bandwidth to at least one of the selected programs based on an amount of changes within at least one of the selected programs over time.

99. The system according to claim 98, wherein said changes occur frame to frame.

100. The system according to claim 98, wherein said changes are changes in visual detail.

101. The system according to claim 95, wherein said central processing unit further comprises an algorithm for selecting said programs.

102. A system for allocating bandwidth to a plurality of programs according to claim 95, wherein said central processing unit also divides the bandwidth so that each of the program categories receives a segment of the bandwidth.

103. The system according to claim 102, further comprising a video/audio equipment connected to said central processing unit for dynamically changing the bandwidth allocation over time.

104. The system according to claim 103, wherein said video/audio equipment dynamically changes bandwidth allocation by changing a compression ratio of at least one of the selected programs, whereby programs with higher compression ratios require lower bit rates and less bandwidth, and programs with lower compression ratios require higher bit rates and more bandwidth.

105. The system according to claim 103, wherein the step of dynamically changing the bandwidth allocation over time includes allocating bandwidth to at least one of the selected programs based on an amount of changes within at least one of the selected programs over time.

106.   The system according to claim 105, wherein said changes occur frame to frame.

107.   The system according to claim 105, wherein said changes are changes in visual detail.

108.   The system according to claim 102, wherein said central processing unit dynamically changes bandwidth by varying a number of selected programs within at least one of the selected categories.

109.   The system according to claim 102, wherein said central processing unit further comprises an algorithm for selecting said programs.

110.   A system for allocating bandwidth to a plurality of programs, each of said programs corresponding to one of a plurality of categories, comprising:

an operations center comprising a computer assisted packaging system;

said computer assisted packaging system comprising:

a central processing unit for assigning priority levels to the programs by assigning to each of the programs a priority level from a plurality of priority levels, said plurality of priority levels includes a high priority level and progressively lower priority levels and also for dividing the bandwidth so that each program category receives a segment of the bandwidth;

a delivery control processor unit connected to said central processing unit; and

a multiplexer connected to said delivery control processor unit for allocating a portion of said segments of bandwidth to the programs in each of the categories with highest of said priority

levels and continuing to allocate said segments of bandwidth to progressively lower priority level programs in each of the categories.

111.   The system according to claim 110, further comprising a video/audio equipment connected to said central processing unit for dynamically changing the bandwidth allocation over time.

112.   The system according to claim 111, wherein said video/audio equipment dynamically changes bandwidth allocation by changing a compression ratio of each of the programs, whereby programs with higher compression ratios require lower bit rates and less bandwidth, and programs with lower compression ratios require higher bit rates and more bandwidth.

113.   The system according to claim 111, wherein the step of dynamically changing the bandwidth allocation over time includes allocating bandwidth to at least one of the selected programs based on an amount of changes within at least one of the selected programs over time.

114.   The system according to claim 113, wherein said changes occur frame to frame.

115.   The system according to claim 113, wherein said changes are changes in visual detail.

116.   The system according to claim 110, wherein said central processing unit further comprises an algorithm for assigning said priority levels.

117. The system according to claim 110, wherein said central processing unit appends a header to all the selected programs with the same priority level, wherein said appended header identifies said priority level for the program.

118. The system according to claim 117, further comprising at least one cable headend, wherein each of said cable headends receives said programs from said operations center according to said assigned headers.

119. The system according to claim 110, further comprising at least one transponder for receiving programs for one of said assigned priority levels from said operations center.

120. The system according to claim 119, further comprising at least one cable headend, wherein each of said cable headends receives said programs from at least one of said transponders according to said assigned priority levels.

121. The system according to claim 119, further comprising at least one cable headend and at least one transponder, wherein each of said cable headends receives said programs from said transponders according to customized priority.